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ABSTRACT

Reported are summaries of meetings held to: (1) identify and discuss environmental education in the region; (2) review the guidelines and recommendations of the Belgrade Workshop of 1975 in the light of each region's environmental education needs; (3) discuss ways to develop the exchange of ideas and information so as to establish or strengthen a regional network system and cooperation in environmental education; and (4) formulate regional strategies for future action. Brief summaries are included from meetings held by 12 African countries, 17 Asian countries, 13 Arab countries, 19 Latin American countries, and 27 European countries plus Canada and the United States. (RH)

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Connect

UNESCO-UNEP ENVIRONMENTAL EDUCATION NEWSLETTER

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Regional Meetings in the Context of the International Environmental Education Programme

As of the end of January 1977, a meeting of experts devoted exclusively to environmental education has been held in every region of the world—Africa, the Arab States, Asia, Europe-North America and Latin America. The regional meetings have followed the Belgrade Workshop of October 1975, which was conceived and organized as the springboard for the International Environmental Education Programme, launched jointly by Unesco and UNEP (United Nations Environment Programme).

All the meetings are best appreciated in the context of the overall objectives and activities of the new International Environmental Education Programme, whose first, three-year phase was initiated in January 1975 and whose culminating activity will be the ministerial-level Intergovernmental Conference to be held in Tbilisi, USSR, October 1977.

The objectives of the International Environmental Education Programme aim at:

- promoting the exchange of ideas, information and experiences relating to environmental education among the nations and regions of the world;
- promoting the development and coordination of research activities leading to a better comprehension of the objectives, contents and methods of environmental education;
- promoting the development and evaluation of new materials, curricula, instructional materials and programmes in the field of environmental education;
- promoting the training and retraining of key personnel for the development of environmental education, such as teachers, planners, researchers and educational administrators;
- providing technical assistance to Member States for the development of environmental education programmes.

The activities of the International Programme for Environmental Education fall within these principal areas:

- research, experimentation and development of innovations in the field of environmental education, primarily through a world-wide programme of pilot projects;
- the gathering, organization and dissemination of information concerning environmental education, principally through a global network system of information about individuals and institutions in the field of environmental education and the publication of an international newsletter;
- promotion of the discussion and elaboration of policies and strategies for the development of environmental education at all levels—local, national, regional and global.

Central to the International Environmental Education Programme and its last-mentioned area of activity has been the series of meetings begun at Belgrade in 1975 and climaxing in Tbilisi in October 1977.

This issue of *Connect* is devoted to a chronological report on all the regional meetings which have been held in the past months. These regional meetings were organized by Unesco with the cooperation and participation of UNEP.

The general purpose of the regional meetings was to bring together environmental education experts, in their personal capacity, to: (1) identify and discuss environmental education in their particular region;

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(2) review the guidelines and recommendations of the Belgrade Workshop of 1975 (see *Connect*, Vol. 1, Nos. 1 and 2) in the light of their region's environmental education needs; (3) discuss ways to develop the exchange of ideas and information so as to establish or strengthen a regional network system and cooperation in environmental education; and (4) formulate regional strategies for future action.

Conclusions varied from region to region, because of the varying environmental situation and state of development. A consensus emerged, however, as to the concept of environmental education as multidisciplinary and problem-solving in its approach, life-long in its conduct both inside and outside the formal school system, and encompassing in its view of the environment as a totality—natural and man-made, ecological, economic, social and cultural.

Similarly, the goal of environmental education was generally agreed upon as aiming at the improvement of all environmental relationships, including the relationship of humanity with nature and people with each other. The modalities alone differed according to the situation, needs and priorities of each region, as they were identified and discussed at each regional meeting.

A principal constraint, often pointed out by participants, was the rigidity of formal, traditional education which tended towards single-discipline instruction, in contrast and opposition to the inter- and multidisciplinary approach of environmental education. A principal need, it was also affirmed, was coordination and cooperation at the regional and global level to achieve both environmental and environmental education goals.

Africa

The African Regional Meeting on Environmental Education

Twenty-seven experts from twelve countries assembled for the African Regional Meeting on Environmental Education (EE), held in Brazzaville, The People's Republic of the Congo, 11-16 September 1976. Eleven represented formal or in-school education and five nonformal or out-of-school education. Seven were educational administrators or programme planners and four were among their country's policy and decision makers. Participants were joined by observers from the World Health Organization and the World Meteorological Organization.

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As for all the regional EE meetings, there was a preliminary survey and discussion of the most disquieting **environmental problems** with which environmental education would have to concern itself. For Africa this meant principally food and health problems, desertification and sudden urban crowding.

Similarly regarding **environmental education,** there was a survey and discussion of the actual situation in Africa, leading to these observations about problems to be solved:

- there are some EE programmes at the primary level, but very few involving the training of teachers for the secondary and tertiary levels;
- there is considerable resistance to innovation and reform in education on the part of teachers and consequently to the introduction and development of EE programmes;
- often the inter- and multidisciplinary character of environmental education is viewed by educators as upsetting for traditional single-discipline teaching;*
- moreover they tend to regard environmental education as a subject to be taught by environmental specialists;
- most educators in Africa lack the elements of an environmental education, wherefore the basic need for educating the educators in environmental problems, attitudes and concerns.

Participants further agreed that the classical pattern of education imported by or imposed upon Africa was far from ideal for regional environmental education. It tended to atomize knowledge and alienate students from their environment, whereas traditional African education did not favour such narrow specialization or isolation from the local community. The participants consequently stressed the importance of modifying the classical colonial school system, wherever it occurred, so as to integrate school and community in a productive relationship. This meant instructing youth in environmental matters, awakening their awareness, instilling social attitudes and developing their problem-solving skills, all of which implied interdisciplinary programming and participation of and in the community. This latter, it was felt, had always been a characteristic of traditional African education which now lent itself particularly well to the innovation of community-based environmental education.

Recommendations

In view of the above, participants emphasized the need for research into the forms and methods of traditional African education, which had been neglected or lost for so many years, with the goal of adapting them to the needs of regional environmental education. Other recommendations involved:

- the need for EE programmes which take into account national and regional ecosystems, resulting necessarily in an inter- and multidisciplinary approach;
- the need for training teachers and community leaders in environmental education, especially in

* *Multidisciplinary* is used to mean the juxtaposition of disciplines (fields of knowledge) assumed to be more or less related in subject matter. *Interdisciplinary* describes the interaction between two or more disciplines, which may range from simple communication of ideas to the mutual integration of concepts, methodologies, procedures, etc.

rural areas and always in relation to their local environment;
- the need for integrating environmental considerations in the training of all specialists;
- the need for educating economists, sociologists, engineers, land-use planners, etc., in the teamwork necessary for resolving environmental problems;
- the need for employing EE instructional materials which are derived directly from the pupils' environment and are thus easily understood and utilized;
- the need for using national popular languages for the same reasons;
- the need for training and retraining educators in the inter- and multidisciplinary teamwork required for adequate and satisfactory environmental education;
- the need for a continuous, critical and instructive evaluation of EE programmes not only by educational specialists but by the community as a whole, since it is deeply involved;
- the need for pilot projects at the national and regional level in all aspects of environmental education which have been noted above.

The recommendations covered both in-school and out-of-school education. Participants accented a need to bridge the growing gap between the two by a comprehensive environmental education bringing together school, family and community. However, in view of the actual situation in many African countries, out-of-school EE activity directly involving family and community was accorded special attention with special efforts demanded for appropriate programmes, materials and personnel.

Recommended strategies for African action

Regarding strategies for African action at the national level, participants recommended that:
- interdisciplinary and interministerial committees be created or reinforced for coordinating solutions for EE problems, such as methods, materials and personnel, planning, programming and control throughout national educational systems;
- Member States use to the maximum their own resources for the development of environmental education before seeking such resources elsewhere.

At the **regional level** as well, participants stressed, African actions for the promotion of environmental education should depend to the maximum on African efforts and resources. In this connection it was urged that cooperation and exchange of information and experiences be initiated and organized with other regions of the world in a comparable process of development—Latin America, Asia, the Arab States.

Within the African region, it was felt, the need for solidarity, coordination and cooperation was clearly indicated, if the goals and objectives of environmental education were to be attained. In response, the African Regional Meeting took the first steps towards establishing the African Committee for the Promotion of Environmental Education.

The initial seven members represent the various sub-regions and linguistic groupings of the continent. The committee's mission is to pursue the lines laid down by the regional meeting, reflecting on its directions and recommendations in the perspective of the forthcoming Intergovernmental Conference of 1977.

The African Committee has also been charged with the task of promoting an understanding of the critical importance of environmental education, directing its efforts towards the general public as well as specialists, educators and officials.

Lastly, the African Regional Meeting recommended the creation in the near future of a regional center for the education and training of personnel at all levels, inside and outside the formal school system.

The Asian Regional Meeting on Environmental Education

Twenty-four participants from seventeen countries attended the Regional Meeting on Environmental Education for Asia, which took place in Bangkok, Thailand, 15-20 November 1976. The majority represented the formal education sector with a significant number in senior administrative positions. They were joined by seventeen observers including regional officials of several organizations of the United Nations system as well as other national and international bodies. There was financial assistance for the meeting from the Lee Foundation of Singapore.

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Environmental Education was considered in the light of the vast and varied **environmental situation** of Asia, whose nations range from the highly developed to the slowly developing, and whose climates, soils, vegetation, water, mineral and other resources challenge any generalized presentation. The local aspects of environmental education were thus established as of primary importance.

Regarding the situation of environmental education in Asia, participants generally agreed with the responses to a preliminary Unesco survey of regional needs and priorities which specified *personnel* and *programmes* as the highest environmental education needs. Members of the meeting sharpened and refined the preliminary responses on the basis of their own experiences.

In the area of personnel education and training, they pointed out a necessity in Asia for:
- heightening environmental awareness and personal commitment, as well as skills, in the teaching of environmental education;

- emphasizing in-service, as well as pre-service, training, of teachers in environmental education;
- incorporating environmental education in both the general and specialized training of teachers;
- training teachers in multidisciplinary teamwork and in cooperative activity with nonteaching personnel concerned with the environment;
- acquainting teachers and leaders with the problem-solving approach in environmental education;
- training teachers in the use of out-of-school facilities and sites as essential elements in environmental education.

As for EE programmes, participants indicated an insufficiency of programmes which went beyond conservation of natural resources to include a consideration of the man-made environment in its social, cultural and physical aspects. It was further felt there was a need for recognition at the ministerial level that educational programmes in general should be infused with environmental education.

Country reports, available at the Asian Regional Meeting, indicated EE activities of particular interest. Among others, Pakistan, for instance, reported the development of a special kit for teachers that contains many items enabling teachers to produce inexpensive instructional materials on their own. In several countries, such as Japan, Korea and Malaysia, EE programmes which deal with specific environmental concerns—air and water pollutants, urban crowding, etc.—have been developed.

In the USSR both primary and secondary school students are involved in practical field work for the protection and renewal of natural resources. The Philippines reported a number of interesting experiments in public environmental education which involve interaction between school and community.

In Australia a Habitat Education Kit has been developed for use in secondary schools. The Asian Development Institute, with UNEP sponsorship, has initiated EE programmes for special groups, such as planners and administrators. Sri Lanka has carefully structured a programme for consumer education. Other EE activities were similary reported at the Asian Regional Meeting.

Recommendations

Participants made recommendations which responded to the needs noted previously, as well as others, regarding EE **personnel and programmes:**

- that pilot projects be encouraged for the adoption of EE principles in primary schooling;
- that an EE component be introduced into existing curricula especially for professionals;
- that problem-solving be made part of environmental education;
- that links be formed between school and community, and between educators and other environmentally concerned segments of the population;
- that as a matter of urgency special postgraduate programmes be established for the EE training of specialists;
- that EE orientation programmes be organized for high-level planners and policy makers.

In addition to a recommendation that appropriate EE materials be developed for formal and nonformal schooling at all levels, there was a series referring particularly to nonformal or out-of-school environmental education:

- that modular programmes on local environmental issues be prepared for use by already active community groups, such as youth, housewives, farmers, managers, rural and urban workers;
- that a network for the exchange of EE mass media materials be established for the region;
- that short courses on environmental awareness for mass media personnel be organized, so that they might play a more effective role in the extension of environmental education in Asia and the Pacific.

Recommended strategies for Asian action

Participants concentrated on essentially one post-meeting strategy for action, and its development, in recommending:

- that a consultative committee for environmental education in the Asian region be established and national bodies be formed to give it assistance; and that the consultative committee study the advisability and practicality of forming an environmental education association for Asia and the Pacific.

Arab States

The Arab States Regional Meeting on Environmental Education

Thirty experts from thirteen Arab countries came together for the Arab States Regional Meeting on Environmental Education, held in Kuwait, 21-25 November 1976. It was organized with the participation of the Arab League Educational, Cultural and Scientific Organization (ALECSO) and with the Kuwait Environmental Protection Society as the host institution. Among the participants were six deans of education faculties, one dean of a science faculty, ten university professors, eight programme specialists from ministries of education and three from other ministries. They were joined by six observers representing UN and other organizations. Financial assistance was received from the Friedrich Ebert Foundation of Bonn, Federal Republic of Germany.

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All sessions of the Arab Regional Meeting were plenary; participants preferred discussing every item of the agenda together rather than in separate working groups. Much of the first sessions was devoted to the

concept of environmental education itself, since the meeting was the first of its kind for the Arab States. In this connection there was considerable reference to and consultation of the Belgrade Charter and the Belgrade recommendations.

Finally there emerged a conception of the **environment as a totality**, natural and man-made, and of environmental education as multi- and interdisciplinary in its approach. Mention was made of popular, out-of-school environmental education, but the emphasis, because of the dominantly academic participation, was on formal, in-school EE.

Despite the references to the Belgrade Workshop findings and other world experiences, all participants agreed that environmental education must be keyed to the special considerations of the Arab region, both environmentally and culturally. Lacking, they felt, was an adequate study, country by country, of the region's environmental situation. (Kuwait's study, presented at the meeting as a case history, provided a possible model.)

New curricula for science teaching at the intermediate level, conceived and integrated as environmental education, was presented and discussed at the meeting.

Both for the protection of the environment and for public information and education about environmental problems, participants agreed there was a primary need for the organization of national bodies with these preoccupations. (Kuwait and Tunisia offered the meeting their case histories which might serve as a model.) ALECSO was particularly requested to give guidance and aid in the organization of such national bodies.

Confirming Unesco's survey of Arab States regional EE needs and priorities, made available to each participant (as at all the regional meetings), participants repeatedly returned to what they considered the major need—the **training of teachers and leaders** in environmental education as the essential starting point for environmental education programmes, whether in-school or out-of-school.

Recommendations

Recommendations ranged from general concern about the environment of the Arab region to particulars dealing with environmental education. Among the principal results were the following:

- a comprehensive, country-by-country study of the environment was urged for the Arab States region;
- the principle of socially sound, environmentally concerned development was stressed, as was the importance of environmental education as a factor in such development;
- the training of teachers in environmental education, particularly at the university teacher-training level, was strongly urged as perhaps the highest priority of the region. In this connection, it was pointed out that multidisciplinary teams might be considered the best way for conducting EE teacher-training programmes;
- a source book on environmental education for the Arab States region was recommended, as well as model programmes for radio and television, which were noted as the major media for public environmental education;
- training programmes for newspaper editors and TV/radio producers were consequently given high priority;
- frequent, scheduled meetings of Arab States experts on environmental education, similar to the Kuwait regional meeting, were strongly supported as occasions for an indispensable exchange of ideas and experiences in the initiation and development of environmental education.

Follow-ups

The nucleus for the development of environmental education in the region of the Arab States, created at the Belgrade Workshop, was augmented and consolidated at Kuwait. As a follow-up, ALECSO retained the deans of the various faculties of education and science for several days after the formal closing of the Kuwait meeting, in order to discuss the specifics of environmental education programmes for their respective universities.

A book in Arabic on environmental education in the Arab States, containing the proceedings and results of the Kuwait regional meeting, is being prepared by Unesco and will be published with the support of UNEP. It is planned to serve as an environmental education reference work for teachers and students. The need for source books on environmental education, mentioned at the Kuwait meeting, has already been met in part by ALECSO. (For further information, write to the organization's headquarters, 109 Tahrir Street, Dokki, Cairo, Egypt.)

Latin America and the Caribbean

The Latin American Regional Meeting on Environmental Education

Thirty participants from nineteen countries convened at Bogota, Colombia, 24-30 November 1976, for the Latin American Regional Meeting on Environmental Education. Thirteen represented the nonformal, out-of-school sector of education, seventeen the formal, in-school sector. Twelve observers from various organizations and professional bodies joined them. The host organization was the Instituto Colombiano de Fomento de la Educación Superior. Financial assistance was provided by the Konrad Adenauer Foundation of Bonn.

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The Latin American EE Regional Meeting early adopted **ecodevelopment*** as the core concept and reference point for a definition of the objectives and content of environmental education. It permitted, participants felt, the possibility of englobing the ecological, economical, social and cultural—in short, environmental—dimensions of development. They acknowledged the newness of the concept and the need to elaborate and clarify it, but agreed it was already indispensable for establishing sound, harmonious relationships between the natural and man-made environment in all its human and social aspects.

The meeting pointed out three fundamental **objectives** for environmental education:

- to help develop awareness and understanding of environmental concerns in all their dimensions and consequences, present and future, so as to improve the level and quality of human life;
- to help develop the attitudes and values which motivate individuals and social groups towards a harmonious, continuous and enduring interaction between the natural and the man-made environment;
- to help develop the capacities and skills which permit individuals and social groups to participate as workers, scientists, technologists, administrators, policy makers, et al, in the solution of environmental problems.

In order to achieve these objectives, environmental education, in the collective opinion of the regional meeting participants, should be guided by these principles:

- inter- and multidisciplinary approach;
- a methodology based on the identification and solution of environmental problems;
- establishment of a direct connection with national and local environmental realities so that they become both the subject and the instruments of environmental education;
- identification of the audience of environmental education as the general public and all sectors of the population, each engaged in a life-long educational process.

Regional problems

Regional problems and shortcomings in environmental education, according to the regional meeting participants, include the following:

- EE efforts and activities are often sporadic, partial, dispersed and ineffective, because frequently limited to the introduction of a few elements of environmental education in traditional classwork and programmes, or the addition of a course or two to an already overloaded curriculum;
- often, too, environmental education is conceived as solely preoccupation with the natural environment and its conservation;
- EE materials, on the other hand, tend to be too general, emphasizing urban problems and a single-discipline treatment; good materials are few and insufficiently distributed;
- as for teachers, too few are adequately prepared in the basics of environmental education; too many are unprepared for the multidisciplinary, problem-solving approach involved.

* *Ecodevelopment* implies the development of a given population, harmonizing cultural, economic and environmental factors, by relying as much as possible on the resources of the local community — both human and material — to meet the basic needs of people.

Recommendations

Recommendations of the Latin American Regional Meeting were grouped as pertaining to the formal and nonformal sectors of education as well as the national, regional and global levels for EE planning and cooperation. The largest group concerned **formal, or in-school, education:**

- environmental educators and EE planners should take advantage of general educational reforms occurring in many of the region's nations, since the reforms favour basic principles of environmental education practise;
- environmental education should not be viewed as just another discipline, but rather as dealing with real environmental problems from a multidisciplinary perspective, i.e., ecology, biology, sociology, political economy, etc.
- students should study local environmental problems and participate in their solutions as the best approach to environmental education; this necessarily involves many disciplines and the linking of school and community;
- adequate training of EE teachers and development of EE instructional materials are of the highest priority; workshops now functioning in several countries of the region, which combine both objectives, might serve as models.

As for **nonformal, or out-of-school,** education, members of the meeting underlined the importance of developing environmental awareness and concern on the part of the general public and particular social groups, involving their knowledgeable involvement in the solution of environmental problems. For this, television, radio and press were deemed the most important mass media and adequate EE information and programmes as a necessity. Environmental education was similarly stressed for such important individuals and groups as social communicators, religious leaders, worker unions, farmer associations, youth groups, businessmen and policy makers.

Strategies for cooperation and action

The Latin American Regional Meeting, discussing strategies for future action, stressed the incorporation of environmental education in cooperative international projects dealing with education and the environment, natural or man-made. At the national level, mechanisms for intersectorial and institutional coordination of EE efforts were urged for all groups or bodies most involved in the formulation of environmental policies.

Innovation projects at the subregional level, involving the training of EE personnel and the research and testing of all aspects of environmental education, participants felt, should be reinforced where they are underway and encouraged where they are not.

Regarding the development of environmental education at the **regional level,** participants at the Latin American meeting agreed that Unesco and UNEP, as well as other existing UN agencies and international organizations, disposed of regional centres or facilities sufficient for the tasks involved.

The consensus of all four regional meetings on environmental education was the same: maximum use of existing UN agencies and other bodies should be made rather than creation of new bodies, structures or centres.

Europe
North America

The European Regional Meeting on Environmental Education

Thirty experts from twenty-nine countries, including the United States and Canada, assembled for the European Regional Meeting on Environmental Education, held in Helsinki, Finland, 27-31 January 1977. The thirty participants were joined by fifty-three observers from UN and other organizations as well as from a number of European regional countries.

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Following presentations on the state of the environment and the situation of environmental education in Europe, the meeting was organized into three working groups which dealt with (1) preschool, primary and secondary levels of environmental education; (2) EE at the tertiary or university and post-university level; and (3) EE in the nonformal sector. Following two days' discussion of these themes, participants and observers formed two working groups to consider the remaining agenda items: (1) EE at national and local levels, and (2) regional cooperation.

Goals, objectives and guiding principles of environmental education as described in the Belgrade Charter were adopted as a general framework for discussions by all working groups. The broad, overall conclusion of the regional meeting is best cited in its entirety:

"Environmental education should be centred on specific problems, be interdisciplinary in nature, aim to strengthen the sense of values, contribute to collective well-being, concern itself with the survival of humanity, draw its strength essentially from the initiative of pupils and from their commitment to action, and take account of present and future preoccupations. EE is essentially multidisciplinary and interprofessional. It is linked with all environmental occupations, disciplines and problems and implies the statement and teaching of the philosophy and concepts of the environment at all stages of the educational process."

Emphasis was laid on the problem-solving or "learning by doing" approach, based on a diversity of experiences and direct contact with local environments. The special problem of environmental education in urban settings was considered with the suggestion that special centres be created in cities for urban EE studies.

Inter- and multidisciplinarity were stressed with special difficulties noted between the natural and the social sciences, particularly a lack of coordination and cooperation. At the university level, it was felt, this lack could more readily be overcome and interdisciplinary environmental education made a reality instead of simply a matter of form. Curricula themselves could be classified in two categories: (1) training of environmental generalists in an overall, comprehensive understanding of environmental problems; and (2) training of environmental specialists in such sectors as urban and regional planning, pollution control and nature conservation, with specialized courses in such disciplines as biology, chemistry, geography, agronomy, medicine, sociology, and the like. The latter, participants agreed, lent itself to the most practicable solution for the problem of training and retraining environmental specialists, a method currently—and successfully—employed in all countries of Europe.

"Learning by doing" was also recommended for nonformal, youth and adult environmental education, that is, active participation of all concerned in the identification and solution of environmental problems. This, in turn, it was pointed out, meant incorporation of EE considerations in rural and urban environmental planning and development. The lack of coordination, cooperation and mutual information among different organisations, groups and agencies involved in environmental concerns was mentioned as a common obstacle to general public EE. Another problem discussed was the predominance of research efforts in formal environmental education resulting in a neglect of the nonformal sector, where the need for experimental, research projects is strongly felt.

At the national and local levels, participants observed, there was a marked need to reinforce educational and community support for both formal and nonformal EE programmes; further, that national governments developing EE programmes should take particular care to bridge the frequent communication gap among various EE specialists, notably curriculum development experts, teachers and teacher trainers. At the global level, participants envisaged Unesco's primary role as: (1) dissemination of information and stimulation of contacts and cooperation among Member States and appropriate international organizations; and (2) aiding in the organization and funding of regional meetings, workshops, courses and pilot projects.

Recommendations and strategies for action

A total of approximately eighty recommendations of the European Regional Meeting on Environmental Education dealt with the themes covered by the various groups. Among them were those of a **general nature** as well, spanning the broad area of environmental education:

- environmental education should form an integral part of school and postschool curricula and should be provided for in legislation governing education systems of Member States;
- governments of Member States should further the establishment of institutions for the training of EE teachers, specialists and community leaders according to the needs and capacities of their respective countries;
- of priority importance is the formation of sufficient environmental specialists to cope with the environmental problems faced by humanity, and the provision of adequate training for all those concerned directly or indirectly with the management and improvement of the environment;
- the basic training of such specialists should include the study of vital environmental, ecological and sociological principles so as to permit their foreseeing

the implications of their work vis-à-vis the environment;
- regional or subregional institutes, according to geographical and cultural groupings, should be established to train EE personnel;
- environmental education programmes should be rooted in four basic elements: fundamental disciplines, integrated, interdisciplinary studies, major environmental problems and practical projects involving real situations at local levels.

Recommendations regarding implementation of environmental education at the **national level** included the following:
- governments of Member States should reinforce existing mechanisms, or where necessary set up new mechanisms, for coordinating the work of all the agencies and ministries concerned with environmental education in their countries, and ensure continuity of representation at international meetings;
- national bodies or committees should be formed to deal with all aspects of environmental education and be linked to public and private agencies and news groups involved in the educational process, so as to establish interinstitutional and intersectorial coordination (government environmental protection agencies, mass media representatives, environmental youth movements and practising teachers are in particular need of such coordination);
- existing EE legislation should be implemented, or where necessary new legislation passed, to get EE programmes underway at national and local levels; where legislation is not the basis for curriculum change, full use should be made of advisory or other educational services to achieve the same effect.

Recommendations regarding cooperative EE activities at the subregional level among Member States of the European region dealt primarily with: the exchange and dissemination of information on programme planning, development of instructional materials and the training of teachers. With regard to the forthcoming Intergovernmental Conference, it was recommended that national preparations take place in broadly based national committees, which should be appointed as soon as possible by competent governmental authorities.

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